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DYSPEPSIA.

Physiological and Pathological Observations on the Sympathetic Disorders and Consecutive Diseases of Dyspepsia. By WILLIAM JOHN THOMAS, M.R.C.S., of Liverpool.

THE innumerable and ever-varying symptoms attendant upon derangement of digestion, defy all attempts at systematic classification. Some excellent papers have been written upon the subject, and much information has been laid before the medical public ; and yet we are compelled to confess that a considerable hiatus yet exists even in the historical delineations of the disease ; many peculiarities remain unnoticed, and much further information has yet to be supplied before we can obtain a correct view of the nature of the disease in question.

After the excellent work of Dr. Johnson, which I consider the best extant, we may indeed be pardoned in supposing that little further might be required for the elucidation of the subject. That this gentleman has written well, is universally admitted by all competent judges ; and the high satisfaction which I have derived from the perusal of his practical work demands a public recognition of its excellences, when treating upon a similar subject. My attention has been, for some years back, directed to the subject of derangement of digestion, in consequence of much painful experience of its distressing peculiarities. Having had the unenviable opportunity of scrutinizing the phenomena of indigestion in my own person, I endeavored to trace in my patients the progress of similar symptoms, and sympathies of an identical nature ; in consequence of which investigation, I have deemed it expedient to throw out a few remarks upon the subject, trusting that they may be acceptable to your readers. It is not my intention to make many minute observations upon the most remarkable symptoms ; for these being subjects of daily observation, may not demand so precise a consideration. The eructations of biliary matter, the formation of acid, and the distention of the stomach by containing gases, may, however, require a few observations.

The remarkable phenomena of the formation of acid in the stomach may be adverted to, in the first place. When a dyspeptic invalid has partaken of his ordinary food, the formation of acid commences ; I have remarked, in several instances, that scarcely ten minutes have elapsed from the reception of the food before the acid is perceptible. Some

physiologists have stated that the acid is the muriatic, and that it is secreted by the vasa vasorum of the stomach, and the arterial capillaries which these minute vessels supply ; but I am convinced that in many instances the nature of the acid is materially modified, and that occasionally, instead of an acid, an alkali is produced.

The great question which has hitherto eluded our inquiries is this—By what peculiar process is this acid produced ? Is it secreted, or can it be the produce of fermentation ? From a number of observations, and careful investigations of the subject, I have come to the conclusion that this acid is derivable from three distinct sources : first, I am convinced that a fermentation actually takes place in the *diseased* stomach ; secondly, I believe that the arterial ramifications occasionally secrete an acid fluid ; and, lastly, I apprehend that the production of either acid or alkali may be referred to a chemical decomposition of the ingesta : the primary elements of the food may combine together, and by their combinations form the new constituents of alkaline or acid principles. In the majority of dyspeptic cases, the appetite is good, a craving for food frequently takes place, and faintness will ensue if the demands of nature be not promptly complied with. The result of this morbid appetite is, that the patient partakes too freely of food, and, forgetting the diseased condition of the organ, he distends the stomach until the craving void in the epigastrium is filled up to satiety. The stomach thus becomes morbidly distended with solid ingestum, which immediately paralyses the motions of that viscus, and the phenomena of indigestion appear. The stomach being distended with flatus, the cardiac sphincters are violently burst open, and the eructations of the generated gases ensue. It would be a most desirable experiment if any of our minute chemical philosophers, who have so often illuminated the scientific world by their practical elucidations of complex chemical phenomena, would undertake to analyse these gases. The airs to be analysed might be conveniently received over mercury, and their primary elements and combinations accurately ascertained. A patient who has long labored under derangement of digestion could readily, at any time after a repast, furnish sufficient materials of an aëriform nature for the analysis of the scientific investigator. The physiologist might thus ascertain whether the gases produced bore any relative proportion to the primary elements of the food : he might compute the different proportions of the different gases produced by different species of food, and, by this proceeding, in some measure decide the important question whether these invisible agents are actually produced from the food, or secreted from the capillary apertures of the arterial exhalants. From the experiments on digestion instituted by Dr. Wilson Philip and others, we might conclude that the electricity of the brain or nervous fluid exercises a considerable influence over the functions of digestion : but experiments of this description, however laudable the motive for performing them may be, must necessarily be subject to many objections : first, we may consider that an accurate analogy can never be drawn from these experiments upon brutes, and applied to human beings, because we find that a great distinction exists between the two classes of beings. We all know that beasts and reptiles of the earth select food for themselves, which to them is perfectly salutary, but which

to man would be pernicious, deleterious, and poisonous. Secondly, we cannot with propriety suppose that we are investigating the *natural* action of the stomach, when we first cut through important parts to arrive at vital organs, with which the stomach must of necessity sympathise, and which sympathy must originate a disordered process in equal ratio of activity to the sympathetic intensity. The learned and accomplished physiologists who make these experiments may, indeed, prevent vomiting by tying the œsophagus, but I do not perceive how such violent proceedings can possibly procure for us an opportunity of investigating the *natural* process of digestion. The distention of the stomach having proceeded to an extent which cannot be increased, the diaphragm and abdominal muscles contract; the stomach becomes affected with spasm; the pylorus is pushed inwards towards the duodenum, and its orifice is torn open; the gaseous and fluid materials are thus protruded into the duodenum. When this bowel is preternaturally distended with air or increment, the ductus choledochus communis is, of necessity, acted upon by the physical agents, and, from the irritation produced by the distention, the gall-bladder becomes affected with spasm, and bile is thrown out profusely into the duodenum. A specific irritation having been already produced in this viscus, by the acrimonious chyme from the stomach, the pylorus is preternaturally affected, and no longer performs the office of a valve: the contents of the duodenum are therefore regurgitated into the stomach, and this unfortunate organ has now the advantage of the extraordinary stimulus of the bile, added to its own original acrimonious contents.

At this stage of the disorder, some remarkable phenomena generally arise. In the first place, a sympathetic pain is perceived in the occiput: this pain is described as that of a dull, obtuse, and vibratory sensation. In many cases, the affections of the head and stomach alternate in reciprocal participation of morbid action. I shall illustrate this position by a remarkable case. A gentleman complained of this dyspeptic cephalalgia; it commonly occurred after dinner, when the biliary affections had previously prevailed; a great degree of acidity was produced in the stomach after each repast, and he was accustomed to neutralise the acid with large doses of the bicarbonate of soda. Upon the neutralization of the acid, the gastric irritation subsided; but the morbid action was transferred to the cerebellum, as the occipital sensations appeared to indicate. In this case the following experiment was instituted: The patient was instructed to neutralise the acid as usual with the bicarbonate, and, if the irritation of the brain succeeded, to plunge the head into a pailful of cold spring water. As usual after dinner, the acid was formed in the stomach, and when the eructations of concentrated acid, bile, and flatus, proclaimed the prevalence of gastric irritation, he swallowed several doses of the bicarbonate: in the space of five minutes, the disorder of the stomach subsided, and the headache ensued. After the latter symptom had continued for about half an hour, the patient plunged his head into cold water, and experienced an instantaneous relief from the headache. Whilst he was congratulating himself upon the efficacy of this new remedy, the stomach became affected a second time, and the contents vomited partook of the acerbity of "oil of vitriol:" the bicarbonate was

again employed, and again the headache supervened. The cephalalgic paroxysm became so intense, that the patient had a second time recourse to the cold bath, to alleviate or repel the pain, when precisely the same symptoms of gastric acidity reappeared, and the unhappy patient threw himself upon his couch in the anguish of unspeakable despair.

During these severe paroxysms of gastric irritability, a cloud of melancholy suspends its deep shadows over the agitated mind ; a dejection of thought, with dark delineations of the prospects of futurity, takes place, and melancholy extends the black mantle of despair over the ideal felicities which had formerly flourished in the sunshine of mental serenity. The patient, under these impressions, invariably views his finances in the least advantageous light, and, although his coffers may be filled with gold, yet he will imagine himself upon the point of pecuniary insolvency. It will readily be admitted that these accumulated irritations in the stomach cannot long exist without the adjacent parts partaking of the disorder, and accordingly we find a tenderness upon pressing the epigastrium, extending over the hypochondriac regions. This pain upon pressure is not exactly indicative of inflammation ; in many instances it appears the result of proximate irritation alone, for the pain subsides as the dyspeptic paroxysms disappear. This spontaneous subsidence of the fulness and tenderness of the epigastrium is, in my opinion, diagnostic of the earlier stages of dyspepsia : so long as the pain upon pressure exists merely in the form of paroxysm, we need not fear any actual disorganization of the coats of the stomach. I have remarked that, when the dyspeptic irritation attacks the bowels, which is frequently the case, the irritation in the stomach subsides ; but if the purging be incautiously arrested, by the use of opiates, &c., the original affection of the gastric organ reappears. The same may be remarked of the strangury which occasionally appears as a dyspeptic symptom : it intermits with the stomachic irritation, and the immediate development of the one is the signal for the extinction of the other.

This fact peculiarly illustrates the axioms of physiology ; for, whenever the heart, the liver, the brain, or the bowels, are sympathetically affected in this complaint, the disorder is confined to *one* viscus only ; and we find that two distinct organs are never sympathetically affected at the same moment, unless the irritation has proceeded to an extraordinary degree of intensity ; and whenever several viscera are symptomatically assailed by permanent irritation at the same time, we may rest assured that organic disease exists in the viscus primarily irritated, and also not unfrequently in the organs participating in a preternatural action, which has become permanently sympathetical.

That these irritations terminate ultimately by inflammation, is a maxim which daily experience compels us to admit ; for, physiologically speaking, it is scarcely possible that the minute ramifications of nerves should be preternaturally excited for an indefinite time, without losing a portion of their peculiar powers or energies ; and if they thus, by preternaturally excited action, lose a portion of their natural powers, the arterial ramifications, over whose specific action they continually preside, must necessarily be affected by the loss of nervous power. Thus, I apprehend, it will be generally admitted that the minute branches of nerves expanded

over the serous tissues, and other delicate membranes, preside, in an especial manner, over the arterial and exhalant ramifications of those peculiar textures ; and that the contractility and expansibility of the capillary organs are in equal ratio to the momentum of nervous impression. Let us then suppose, that, by preternatural excitement, the stimulating powers of these delicate nerves are at a discount : the necessary result will be, that the contractility of the arterial trains will become less intense ; and the inferential corollary, that the balance between the exhalant and absorbent systems will be ultimately destroyed. When we consider that the electricity of the nerves is the principal cause of the diversity of the chemical phenomena of the secretions, we may expect that the materials exhaled from the arteries will be vitiated in their natural composition, and originate that permanent proximate reaction which ends only in the disorganization of the textures acted upon.

It is not my intention, in this rapid sketch of the consecutive symptoms of dyspeptic irritations and sympathies, to enter into the why and wherefore of the prerogative of nerves in the composition and decomposition of textures ; but I would briefly remark, that, since all the materials of the body are deducible from the blood, the great modification of the constitutions of those textures compels us to admit that some formative agent must necessarily operate upon the unity of the primary materials ; and we may infer that a galvanic modification of nervous power is sufficient to account for the phenomena of disorganization. I would not, however, be understood to maintain that this galvanic principle is the sole agent in the crystallization of the osseous, fibrous, or cartilaginous laminæ or fasciculi ; but that I am firmly convinced that new complications of primary elements ensue at the extremity of the capillary exhalants, and these modifications of the secreted fluids, and the new arrangements of the primary elements, are caused, in a great degree, by the immediate operation of nervo-galvanic power upon the acuminate extremities of the exhalants. In this manner we may account for the ossification of the valves of the heart, which frequently occurs when the dyspeptic sympathies have for some time exercised themselves over that important organ. That spasms of the heart frequently arise from derangement of digestion, is a statement which will never be questioned by those who have had opportunities of remarking the progress of dyspeptic sympathies : the spasm invariably takes place towards evening, and the patient is frequently aroused out of his slumbers by an alarming apprehensibility of suffocation caused by the tumultuous action of the heart. A slow and obscure action of the exhalants is, however, a symptom of a more dangerous nature, and, by the derangement of the nervous power, these vessels secrete the bony spiculæ which cover the valves of the heart. I well remember a case wherein I severely wounded my fingers, by incautiously introducing them through the auriculo-ventricular opening during a post-mortem inspection ; the valves being consolidated by bony laminæ and osseous projections, of a needle-like appearance. I may briefly advert to phthisis arising from the gastric irritation, as an example of the effect of this great morbid cause in originating consumption of a most fatal character. This disease may or may not be accompanied with expectoration, according to the intensity of the primary and conse-

cutive irritation ; but, whether the discharge be profuse or otherwise, the disease is always attended with marasmus and hectic fever. In some stages of dyspeptic phthisis, I have remarked that the tongue is coated with a semi-pellucid pellicle, of a greyish substance, resembling coagulable lymph. The majority of cases of consumption of the lungs originating from dyspeptic irritation, terminate either by diarrhœa or typhoid fever.

It will be readily acknowledged, from the preceding observations, how exceedingly necessary it is to treat in a prompt and scientific manner the biliary disorders which originate these fatal maladies ; and this observation is the more necessary, since, although the primary irritation may be allayed by the use of medicine, yet, upon the slightest imprudence in diet, the disorder will be instantly aroused. The volumes that have been written upon diseases of the liver, the spleen, the kidneys, and circumjacent viscera, attest, in a peculiar degree, the necessity of attention to the action of that fountain of all nutrition, the stomach ; for we cannot expect the streams to be pure when the sources which supply them are contaminated.

I should exceed the bounds of a few observations were I to enumerate the multitude of symptoms, morbid sensations, and nervous shocks, that alarm the susceptible minds of dyspeptic invalids : sufficient has, however, been said to keep alive the attention of the medical world to one of the most powerful exciting causes of dormant constitutional affections, to the primary cause of the development of a number of local diseases, and to a subject whose peculiar interest consists in the incontrovertible fact, that, although many excellent observations have been recorded, and investigations instituted upon its specific peculiarities, much additional information has yet to be produced.—*Lon. Med. and Phys. Journal.*

EFFECTS OF SWALLOWING PINS.

PETER KEARNS, a gardener, aged 56, of robust frame, was admitted into Sir P. Dun's hospital, under the care of Dr. Osborne, on the 16th of August. It was ascertained, from the testimony of his wife, that he had a singular predilection for keeping pins in his mouth, which he was in the habit of putting there almost every night on lying down to sleep. This circumstance was, however, not communicated until after they had appeared in an ulcer produced in his groin, and he persisted a long time in the belief that it was *impossible* he could have swallowed them.

On his admission he had pain in the right iliac region, increased by pressure or by straining at stool : there were fulness and tension of the part, together with swelling of the inguinal glands. It had lasted two months, having commenced from the cavity of the ilium, and gradually increased till within a few days, when the pain and tension forced him to seek the aid of a hospital. Repeated applications of leeches were used, with water dressings, and subsequently, poultices, and he got draughts of turpentine and castor oil, with hip-baths at nights.

23d.—The tumefaction and inflammation are increasing. The occurrence of flatulence moving in this direction causes a peculiar pain. Bowels

confined during the last thirty hours. A dark spot has formed at the centre of the tumor, a wheyish-colored fluid oozes from around it, and there is a boggy feel, with crepitation, on pressing towards the centre, with induration at the circumference extending towards the pubis and a few inches down the thigh. He was delirious in the night, but there has been neither hiccup nor vomiting. Pulse 90; thready. A continuance of the poultices was directed, with a turpentine enema; and a table-spoonful of port-wine, in an effervescing draught, every hour.

24th.—The tumor has now been opened, and a large quantity of fetid sanious pus has been discharged; had a motion this morning, which contained a small quantity of sanious pus; fermenting poultice to be applied; to continue the wine, and take a quinine pill four times in the day.

30th.—During the last four days there has been a copious discharge of fetid yellowish pus, mixed with sanies, from the wound, and also some coagulated blood, but no repetition of purulent discharge by stool. In order to meet the tendency to sinking, which became very apparent, he got an increased allowance of wine, with porter; and, as his appetite was not much impaired, he was able to use meat diet. The sulphate of quinine was taken in doses of three grains, thrice in the day.

On the 4th of September, the inflammation having now subsided, and the ulcer having assumed a much healthier aspect, a large-sized pin, crooked to a right angle, and oxidized of a purplish black color, made its appearance at the bottom of the ulcer. A few days afterwards this was followed by another, and in some time by a third, previous to his departure from the hospital. After his return to the family with which he lived, the opening continued unclosed and without secretion for two or three months, during which time he acquired the name of the "*Pin-cushion*," from the exit of pins which take place at various intervals, most of them crooked, and all covered with a purplish black oxide above mentioned. On one occasion he was much alarmed by having "broken wind," as he expressed it, through the opening; but, with this exception, no remarkable occurrence took place after his dismissal from the hospital.

The passage of pins and needles from the intestines, through various and sometimes distant parts of the body, has often been observed. In the present instance, however, there were some peculiar circumstances worthy of notice. There can be but little doubt that the place where the pins were collected, was the cæcum, and the passage of purulent matter by stool, in connexion with the highly inflamed state of the parts about the cæcum, which at the same time began to secrete pus, denotes a communication taking place between the cavity of the intestine and the surrounding integuments. In connexion with this may be mentioned, that in a patient of Dr. Osborne's, who died of fever, there was found, in the vermicular appendix of the cæcum, a pin covered with large incrustations, which consequently must have remained there some considerable time, and yet did not appear to have excited any disturbance. The crooked figure of the pins in this case necessarily produced much of the pain and irritation, inasmuch as, whatever position they could be placed in while proceeding towards the exterior, they must have acted like

barbed arrows. Once, however, an opening was effected by the passage of the first, the subsequent pins followed in the same track with the greatest facility, and in fact unperceived by the patient, who was as much surprised as his medical attendants could be, when, on taking off the dressings, the head or the point of a pin was described, peeping up among the granulations. With respect to the crepitus perceived in the surrounding integuments, the same is described in the majority of the very interesting cases of inflammation of the right iliac region, related by Mr. Ferral, in the *Edinburgh Medical Journal*, and is usually ascribed to the commencement of gangrene. In this instance, however, the air effused under the integuments was not to be ascribed to that cause, for the gangrene was principally superficial, and confined to one spot, while the crepitus was diffused through a considerable space, and in the body of the cellular tissue; and again, long after the inflammation had been subdued, he passed air through the opening, as has been mentioned. In such cases as have been described by Mr. Ferral, it will be necessary to examine carefully as to the origin of the emphysema, and not hastily to ascribe it to gangrene. The adhesions of the cœcum with the cellular membrane outside the peritoneum are so intimate, and this portion of the intestine is so liable to ulceration, and consequently to perforation, that the passage of air from the latter into the former may very readily occur, and thus produce an appearance which, if mistaken for gangrene, will give rise to a very inappropriate course of treatment. It is evident that, in our case, the pins must have passed through the cœcum in the part now alluded to, and not through the peritoneum; as, in the latter case, the symptoms of peritoneal inflammation would infallibly have been present.—*Medical Gazette*.

For the Boston Medical and Surgical Journal.

ON THE USE OF OPIUM.

MR. EDITOR,—I am glad to see you calling the attention of your readers to the nature, use, and abuse of *opium*, since we shall unquestionably have occasion for its boldest employment, in case our country should be visited with epidemic cholera.

The largest dose of opium that I ever knew administered at once by a physician, was thirty grains. This was to a patient who had been subject to occasional paroxysms of *spasmodic icterus*, of the most painful kind. The dose soon relieved the paroxysms for which it was given, and was followed by no inconvenience. I do not, however, think such heavy practice justifiable. It would have been much safer to have given the opium in the quantity of four or five grains at once, if it had been necessary to repeat it every twenty or thirty minutes, for an hour or two. In the same disease, I once gave a female patient ten grains, within an hour and three quarters. Calling the next day, I found her comfortable, exercising herself by walking from one room to another.—A man called on me who, as he said, had just taken a half a wineglassful of laudanum, which he had mistaken for bitters. I gave it as my opinion, that if he continued to exercise, and did not suffer himself to fall asleep for a few

hours, he would be in no danger ; but as the safest measure, I advised, and rather insisted on giving him, an enetic. He, however, said he hated to miss his dinner, as it was about ready, and rather better than common ; and besides, that it was indispensable for him to attend business in the afternoon. He consequently returned home, ate a hearty dinner of turkey, drank three or four glasses of Madeira, and then went to his customary employment, which was that of an auctioneer. No inconvenience followed.—A Professor stated to his class, that opium might be taken, with impunity, to an enormous extent, beginning moderately and increasing every hour till several grains were swallowed at a time, and then again diminishing it in the same ratio. Shortly after, three or four of his pupils, though attending the lectures and to their studies as usual, were under the operation of seventy or eighty grains a day. No disagreeable consequences followed the experiments of these young men, or inconvenience sufficient to interrupt them, or prevent them from attending to all their customary duties.—If the first dose is not large enough to extinguish life, and this is followed by another before the secondary or narcotic effects of opium begin to appear, it seems to be pretty evident that the use of this article may be carried to a very great extent, without any immediate danger. The greatest inconveniences, that I know of, are a troublesome itching of the nose, sometimes extending over the whole body, and torpor of the bladder, occasionally so great as to demand the catheter. There is, besides, frequently a considerable hoarseness. It has a peculiar effect upon the mucous membrane, lessening its secretions over all the surface where it is situated. I have never seen intoxication, or anything like it, either of body or mind, supervene, from taking this drug the most freely, when the precautions are rigidly observed of giving a new dose before the secondary effects of the former are manifested. Possibly I ought to except a few persons of an hysterical temperament, who sometimes act very strangely after taking a single grain. But some of these patients are exceptions to all rules, whether they take medicines or not. I believe that the opium sickness that is sometimes very troublesome, when the patient is in an erect position, rarely or never occurs when proper pains are taken to prevent the secondary effects, and the article is gradually and regularly abstracted.

I once knew a woman of upwards of eighty years of age, who was very active and industrious, and brought up a large family of children. She had been in the daily habit, for more than forty years, of taking a single dose of laudanum, to palliate an asthmatic cough. She had gradually increased the quantity of the dose, so that it at last amounted to a tablespoonful. She finally died of an acute *catarrhus senilis*. By palliating her cough with laudanum, she had enjoyed more comfortable health, and was more active, than most old people ; and there was nothing peculiar in her last sickness, except a less susceptibility to the action of the usual remedies, than is common. Neither she, nor the other persons of my acquaintance who have daily used opium, were troubled with costiveness.

Perhaps the daily taking of opium is the most powerful *antaphrodisiac* known. Its habitual use for a time produces all but impotency. R.

THE TESTS OF MAGNESIA.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—Upon looking over a February number of your Journal, I have been much surprised at some remarks therein contained, respecting Carbonate of Magnesia; and as their tendency is to render doubtful the value of the simplest test we have for judging of the purity of this article, I have been induced to send you the following brief remarks as a reply.

The writer has said, that heavy carbonate of magnesia is more missible in water than light carbonate, or even than carbonate of lime. To this I reply, that light carbonate may, by compression, be made heavy carbonate, and of course as missible in water, provided the heavy carbonate recommended, be unadulterated with carbonate of lime; and that no carbonate of magnesia is as missible in water as carbonate of lime.

Again—heavy carbonate of magnesia is said to be more pure than light, because the latter is combined with chlorides and sulphates of magnesia, lime and soda. We should be more inclined to suppose, that the *heavy* carbonate was thus contaminated; surely none of the salts enumerated, would conduce to its lightness!

The writer further remarks, that, “A few, and but a few generations back, carbonate of magnesia was many times its present price, so as to be worth adulterating with carbonate of lime”—the natural inference from which, is, that now the test by weight is unnecessary, the price of carbonate of magnesia being only 35 cents per lb., while carbonate of lime is worth 1 cent per lb., the difference is not sufficient to offer any inducement to adulterate.

In the latter part of the article alluded to, it is said, that in cases where sulphuric acid has been taken into the stomach, carbonate of magnesia is preferable, as a remedy, to carbonate of lime, for the reason that an insoluble crust is soon formed around the latter, preventing further action.—That magnesia is to be preferred to lime cannot but be admitted; but, that a crust should envelope a fluid mixture in the stomach, under any circumstances, more especially while in contact with an acid, for which it possesses a strong affinity, no one can believe; nor should I have alluded to this portion of the writer's remarks, were it not for the sentence preceding it.

The simplest tests of magnesia and its carbonate, are, lightness and tastelessness, and it is to be regretted that we have not as simple means of judging of the purity of many other medicinal articles; much more that any measures should be adopted, unnecessarily, not to say falsely, to render doubtful the few means which dealers in medicines now have, of estimating their purity.

J. H. B.

April 10, 1832.

The foregoing communication from a practical chemist and apothecary, is in reply to an article on “The Varieties of Magnesia,” which may be found on the 9th page of the present volume of this Journal. For our-

selves, we have never found any preparation of magnesia but *Henry's*, which would leave no sediment, when mixed with water, and produce no wry faces when taken by children. Ed.

BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, APRIL 18, 1832.

SICKNESS AT NIAGARA.

BEING firm believers in the doctrine of Sydenham, we cannot but have remarked the extraordinary constitution of the atmosphere, in most portions of the globe, for the last few years. Diseases, remarkable either for presenting new symptoms, or for an unusual degree of severity in those generally attending them, or for a measure or rapidity of fatality almost unprecedented, have visited the human family in almost every clime.

The king of all these is the cholera, about which the profession is already pretty well informed. The common cholera, too, has in England and other places assumed a degree of severity, which perplexes the wisest heads in distinguishing it from the Asiatic. The dengue is another of the new forms of disease which may be ranked among the productions of the last few years; and still another is that which has prevailed in Paris, some account of which has been inserted in our pages. Among ourselves, the influenza of the past winter, though nothing novel in character, has prevailed to an extent seldom surpassed, and with a degree of malignity altogether unusual. The scarlatina, for the past year, has been far more fatal than in ordinary times, and most of the cases which have terminated favorably, have been attended with an excessive prostration; many, with repeated and alarming syncope, and with a slow and often imperfect recovery. The common cholera of our summers has been frequent during the months of January, February, and March, and there are now, at a season when the disease has, in years past, been almost unknown, many cases within the borders of our own metropolis.

From the West, and the South, and the North, we have had accounts from time to time of mortal maladies, and we now learn from Upper Canada that a disease has prevailed there, exciting great alarm, causing many families to remove to Buffalo, taverners to close their houses, and other interruptions to the common routine of business. The symptoms or precise character of this disease we cannot exactly ascertain, as the only accounts of it before the public, are in the newspapers. A letter to one of these periodicals at New York, states that "the disease comes on with a cold chill, *invariably*, which continues in some patients an hour, in others several hours, and in some with great prostration of strength.

After this, a reaction takes place, with great heat of the body and strong determination of blood to the head ; intense headache ; in some cases slight vomiting of bilious matter, and in the generality of cases constipation. Delirium in many cases ensues ; others remain in a comatose state, and death terminates the sufferings in 48 hours. Some, however, linger seven or eight days—in some cases occasional spasms are met with, and in others are entirely absent."

There is certainly prevalent a state of the atmosphere that produces peculiar effects on the animal frame. Should the ensuing summer be as extraordinary as the past winter has been, these effects, we fear, will be too clearly developed.

SAVAGE MODE OF PRESERVING HEADS.

In the last number of the *Journal of the Royal Institution*, is an interesting account of the mode of preserving the human head which is practised by the natives of New Zealand. The attention of the individual who furnishes the account, George Bennet, Esq., was attracted by the appearance of a number of heads fixed in stakes, the faces of which had perfectly preserved their form, the cutis remaining perfect, and the hair strongly rooted. These he found to be mostly heads of chieftains slain in battle, which were preserved as honorable mementos of their valor. The process of preparing them is as follows. A hole being made in the bottom of the skull with a club, the brains are carefully drawn out and the interior washed. The head is then immersed in hot water, and the cuticle removed with great care, so that the hair which is loosened by this process may not be drawn out. A pit is then prepared so as to form a sort of oven, covered over except a central opening, over which the skull is placed. Water being poured into this pit, hot stones are rolled in at intervals, the steam from which arising passes freely into the skull. In the meantime, the septum marium and nostrils are plugged with bits of wood, and the latter stuffed with flax or pieces of soft wood, so as to give to the nose its natural shape ; and one person is employed in smoothing with his hand any inequalities which show themselves in the surface of the skin. When thoroughly steamed, the head is dried and then smeared over with oil ; although this last process is considered rather as contributing to beauty of appearance, than tending to its preservation. Heads prepared in this manner have been purchased and carried over to England, where they are esteemed a great curiosity.

TREATMENT OF ULCERS.

DR. BRADFORD has a communication in the last *London Medical Gazette*, on the modes of treating ulcers. He thinks the methods hitherto adopted have been based on wrong views, and therefore proposes one on princi-

ples directly opposite. After enlarging considerably on these topics, we are favored with an exposé of the novel application, which is a succession of adhesive straps over the ulcer, so applied as to draw its edges towards each other, and over this a bandage from the foot upward! Truly, this is a novelty which will excite the deepest interest in every surgical practitioner.

QUARANTINE REGULATIONS—VACCINATION AMONG THE INDIANS.

It will be recollected that after the subject of the quarantine restrictions had been discussed by the Committee on Finance, in the House of Representatives in the Congress of the United States, it was, at the suggestion of that committee, referred to the Committee on Commerce. This committee, after diligent attention to the subject, and a correspondence with the civil authorities of the several sea ports on the coast, has reported a bill the more effectually to enforce such restrictions throughout the Union. The bill was passed through all its stages without opposition. The principal provisions are the following:

1. Every vessel arriving at any port in the United States shall be subject to the quarantine regulations of the port.
2. It shall be the duty of all officers of Revenue Cutters to assist in carrying into effect the quarantine regulations of the several ports, under the directions of the Secretary of the Treasury.
3. It is the duty of all licensed pilots to place in the hands of the commanders of all vessels they may board, copies of the quarantine regulations of the port, and of this act.
4. Any persons violating the provisions of this act, shall be liable to a fine not exceeding \$1000—one half to the United States, the other half to the informer.

A bill has also passed Congress for extending the benefits of vaccination among the Indian tribes.

Mollescence of the Brain.—Much discussion has taken place respecting the nature and cause of softening of the brain. The earlier pathologists, when they met with this condition of the organ, did not attempt to account for it—and under the name of apoplexy were ranged the various alterations of the cerebral mass. Valsalva and Morgagni regarded mollescence of the brain as a kind of decomposition or putrefaction, the effect of which was suddenly fatal. When their scalpel detected this state of the organ, they looked upon it, not as the cause of the disease under which the patient had labored, but as the final termination of the malady. Bayle, Cayol, Recamier, and other modern pathologists, have drawn attention to the subject under consideration—carefully describing the appearances, and cautiously endeavoring to account for them. Recamier designates the morbid cause by the old name “*ATAXIC FEVER*”—and the effect he terms “*foyer ataxique*.” Rostan is more cautious. He minutely details the symptoms and post-mortem appearances, styling the affection an “*organic alteration*,” which, of course, prejudices nothing as to the nature or cause. Lallemand indeed is more bold. He ascribes the ramollisse-

ment at once to an inflammatory process—and in the majority of cases, there can be little doubt that this condition of the brain is the effect, the termination of encephalitis. On the other hand, when in and around the softened portion of brain, we can discover no sanguineous injection, no purulent infiltration, no morbid secretion whatever—nothing but a mere diminution of consistence in the nervous pulp—how can we call this inflammation? Andral doubts the correctness of the exclusively inflammatory doctrine—and in a report from the HÔTEL DIEU, published in a recent number of the *Journal Complementary*, there are some cases related to show that Lallemand's hypothesis is not quite correct. Some of these we shall here notice.

Case 1. A female, aged 68 years, entered the HÔTEL DIEU, on the 14th June, 1830, for a slight bronchial affection, for which she was treated in the usual manner, and soon recovered. On the 1st of July, this woman, while walking about the wards, suddenly fell down deprived of sense and motion. The pupils were contracted, the face pale, the respiration quick, the pulse hard and frequent. The case was pronounced, of course, to be apoplexy—and venesection, sinapisms, &c. were ordered. She lingered in a wretched state for 25 days, when mortification of the integuments of the back put an end to her existence.

On dissection, there was no turgescence of the vessels of the encephalic membranes. These membranes were rather pale than otherwise. The anterior portions of each hemisphere appeared natural; but on approaching the middle lobes, they were found without consistence, and a certain portion reduced to a kind of bouillie, where all trace of cerebral texture was lost. There was no mark of inflammation, or even injection in any part of the brain.

Case 2. This occurred in the hospital for old women. A female, aged 78 years, of apparently good constitution, had been in the Salpêtrière since the 13th July, 1830. She was carried to the above institution on the 25th April, 1831. She had complained, for a fortnight, of her head in the right side, while there was numbness or sense of formication in the extremities of the opposite side. There was some impediment in her speech. She ate and slept well. The left arm gradually lost its motive power, and the lower extremity was benumbed. The other side possessed motility and sensibility.—There was little disturbance in the other functions. For a fortnight, or so, the paralysis gained ground, and then she remained hemiplegic for a month or more. Pains then came on in the affected parts—agitation and delirium at night succeeded—the evacuations became involuntary—and death closed the scene.

On dissection, the meninges of the brain appeared gorged with fluid blood, which also flowed freely from the sinuses of the dura mater. There was nothing unusual in the external character of the cerebral mass; but, on penetrating some way into the right hemisphere, a focus of mollescence (foyer d'un ramollissement) was discovered, six inches in length and two in breadth. There was no other organic alteration of any consequence in the brain.—*Medico-Chirurgical Review.*

Hereditary Syphilis.—Professor HAASE has recorded some interesting cases in which syphilis appeared in very young infants, although their parents had been for many years perfectly free from any venereal affection, and to all appearance in perfect health. Many similar facts have been

related by other writers. M. Haase infers that a syphilitic diathesis may be transmitted from parents to their offspring, in the same manner as the disposition to scrofula, &c., and that no material transmission is essentially necessary. M. H. is also of opinion that new-born children may inherit syphilis from the father, although the mother has never been infected.—*Bull. des Sc. Med.*

The Laws of Cholera are comprehended by Dr. Kennedy under the following designations.

"1st. *Climatic influence.* The contagion of cholera may spread in every climate, with its spreading powers but slightly, or not at all, impaired.

"2d. *Predisposition.* Persons in certain states of bodily health are peculiarly liable to be attacked.

"3d. *Latent infection.* The period of time during which the contagion lies dormant in the system rarely exceeds three days.

"4th. *Increase and decline.* When the cholera appears in a town, it extends rapidly, and, in general, runs through its course in the space of a few weeks.

"5th. *Contagion.* Cholera is contagious, and its contagion is of a highly diffusible nature."

Hufeland's Emetic for Infants.

R. Pulv. Ipecac. ℥j.
Oxym. Scillæ, 3 ss.
Syrupi. Framb. 3 ss.
Aque comm. 3 ss. M.

A spoonful is to be given in coffee, at short intervals, until vomiting is induced, and it may be repeated if the action is to be kept up. For children more than a year old, a quarter of a grain of tartar emetic may be added to the above mixture, unless diarrhœa be present.—*Gazette des Hôpitaux.*

Delirium Tremens.—Of 43 patients laboring under this complaint, M. Pauli has lost but 1, and in 12 cases has been enabled to stifle it in its beginning. His grand remedy is fresh *ox gall*, in a dose of from 3 to 6 drachms (gros) in from 4 to 6 ounces of peppermint water, infusion of valerian or calamus aromaticus. Same time, the patient takes half a glass of brandy in the morning, and at night one or two grains of watery extract of opium.—*Rust's Magazine.*

Adhesive Plaster.—The following composition I have found to adhere to the skin with great tenacity, and without irritating it: it may also be melted by a very low degree of heat:—

R. Picis Nigræ, 2 oz.
Cereæ Flavæ, 1 oz.
Resinæ Flavæ, 2 oz.
Terebinthinæ, 1-2 oz. Ft. Emplast.

Electric Embryos.—For their important researches regarding the formation of embryos by the action of electric currents, Professor Delpsch and

Dr. Coste have been recently presented with the large gold medal by the Société des Sciences Physicales.—*Medical Gazette*.

Lateness of the Season.—The Gardiner (Me.) paper of the 10th inst. states that the ice in the Kennebec is $1\frac{1}{2}$ foot thick. Last year the river opened on the 24th of March.

University Degrees.—At the Medical Commencement at the University of Pennsylvania on the 29th, the Degree of Doctor of Medicine was conferred on 133 young gentlemen.—45 were from Virginia, 35 from Pennsylvania, and the remainder from 12 other States.

Seventy-four young gentlemen received the degree of M.D. at the annual commencement of the Medical Department of Kentucky University, on the 20th ult.

At New York, on the 3d instant, the College of Physicians conferred twenty degrees of Doctor of Medicine.

New York Eye Infirmary.—Twelve hundred persons, it is said, were prescribed for at the New York Eye Infirmary in 1831, and 10,000 since its establishment in 1820. The collections in aid of this charity in one day were two hundred and fifty-five dollars.

The corner stone of a *Hospital for the Blind and Lame* was recently laid in Philadelphia.

Notice.—The communication we publish to-day on the subject of Opium, is from the pen of a long-distinguished medical practitioner, who assures us, to use his own words, that "all the facts mentioned have come under my immediate notice, or have been related to me by the actors in them, so that they are not rumors at second or third hand."

Whole number of deaths in Boston for the week ending April 13, 37. Males, 23—Females, 14. Stillborn, 2.

Of consumption, 2—lung fever, 4—liver complaint, 1—inflammation in the head, 1—scarlet fever, 8—old age, 5—brain fever, 3—meneses, 2—convulsions, 1—unknown, 1—croup, 1—suicide, 1—teething, 1—infantile, 1—quinsy, 1—dropsy on the brain, 1.

ADVERTISEMENTS.

THE CEREBRO-SPINAL AXIS OF MAN, with the origin and first divisions of its Nerves. From the French of M. MANEC, D.M.P.; Lecturer on Anatomy and Operative Surgery, &c. at Paris. Translated and revised by L. PANCOAST, M.D. Just received by CARTER & HENDEE. March 7.

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